

STOCKTON HILL ROAD

Public Meeting 2: Evaluation Criteria Tables
November 14, 2013

Evaluation Criteria Methodology

The following tables show how the preliminary mobility and development framework approaches were evaluated.

Mobility Approaches

The evaluation of the Mobility Approaches includes Traffic Operations, Access Control, Beverly Intersection Improvements, and Non-motorized Improvements.

Traffic Operations

Table 1: Level of Service (LOS) for Northbound Stockton Hill Road Segments.

Segment - Stockton Hill Road NB	LOS*								
	Existing	AM			Midday			PM	
		Existing	Optimized		Existing	Optimized		Existing	Optimized
Detroit - I-40 EB	E	D	+		D	C	+	C	C
I-40 EB - I-40 WB	C	C			C	C		C	C
I-40 WB - KRMC	C	C			D	C	+	D	B
KRMC - Sycamore	D	C	+		D	C	+	D	D
Sycamore - Airway	E	E			E	F	-	E	F
Airway - Kino	B	B			B	B		B	B
Kino - Home Depot	B	B			C	C		B	B
Home Depot - Gordon	B	B			B	B		B	B
Gordon - Northern	A	A			A	A		A	A
Corridor	C	B	+		C	C		C	C

*Segment LOS measures include +/- if applicable

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Table 2: Level of Service (LOS) for Southbound Stockton Hill Road Segments

Segment - Stockton Hill Road NB	LOS*								
	AM			Midday			PM		
	Existing	Optimized		Existing	Optimized		Existing	Optimized	
Detroit - I-40 EB	A	A		A	A		A	A	
I-40 EB - I-40 WB	B	B		B	B		B	B	
I-40 WB - KPMC	B	B		C	C		B	B	
KPMC - Sycamore	C	C		C	C		C	C	
Sycamore - Airway	C	B	+	C	B	+	C	B	+
Airway - Kino	C	B	+	D	C	+	C	D	-
Kino - Home Depot	C	C		C	D	-	D	C	+
Home Depot - Gordon	B	B		B	B		B	B	
Gordon - Northern	C	C		B	B		C	B	+
Corridor	B	B		B	B		B	B	

*Segment LOS measures include +/- if applicable

Table 3: Speed for Northbound Stockton Hill Road Segments

Segment - Stockton Hill Road NB	SPEED* (MPH)								
	AM			Midday			PM		
	Existing	Optimized		Existing	Optimized		Existing	Optimized	
Detroit - I-40 EB	12.7	14.5	+	17	18	+	18.1	18.7	+
I-40 EB - I-40 WB	18.3	18	-	20.7	20.7		21.7	21.6	-
I-40 WB - KPMC	21.6	19.3	-	16.8	21.1	+	17	24	+
KPMC - Sycamore	14.1	22.6	+	14.8	20.5	+	16.9	16.6	-
Sycamore - Airway	13.5	12.8	-	10.7	9.6	-	13.8	9	-
Airway - Kino	25.7	29.4	+	27.9	29.6	+	24.7	29.6	+
Kino - Home Depot	26.2	25.5	-	18.9	23.6	+	25.8	24.7	-
Home Depot - Gordon	28.3	28.5	+	26.5	28.9	+	27.2	28	+
Gordon - Northern	34	33.8	-	33.8	34.3	+	33.4	34.5	+
Corridor	23.1	24.3	+	22.6	23.8	+	23.5	23.5	

*Segment speed measures include +/- if applicable

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Table 4: Speed for Southbound Stockton Hill Road Segments

Segment - Stockton Hill Road NB	SPEED* (MPH)								
	AM			Midday			PM		
	Existing	Optimized		Existing	Optimized		Existing	Optimized	
Detroit - I-40 EB	32.4	32.4		32	33.7	+	31.6	32.6	+
I-40 EB - I-40 WB	24.5	27.6	+	24.8	24.6	-	25.3	26.1	+
I-40 WB - KRMC	24.2	24.4	+	19.7	23.5	+	24.5	24.5	
KRMC - Sycamore	21.7	20.8	-	20.7	21.1	+	22.2	20.3	-
Sycamore - Airway	23.8	24.9	+	21.6	26.9	+	20.1	25.2	+
Airway - Kino	23.9	25.2	+	17.2	20.5	+	19.7	15.5	-
Kino - Home Depot	19.8	20.2	+	19.4	14.5	-	14.2	19.6	+
Home Depot - Gordon	24.4	24.4		24.9	24.9		25.1	25.1	
Gordon - Northern	23.3	18.5	-	25	25.6	+	20.3	25.3	+
Corridor	25.4	25.3	-	24.4	25.1	+	24.1	24.9	+

*Segment speed measures include +/- if applicable

Table 5: Evaluation of Traffic Operations Alternatives

Criteria	Traffic Operations Alternatives				
	Signal Optimization	ITS: GPS/Interconnect	ITS: Central System	ITS: Adaptive System	Vehicular Capacity Improvements
Improvement Cost	\$	\$	\$\$	\$\$	\$\$\$
ROW Impact	Good	Good	Good	Good	Fair
Funding Availability	Good	Good	Good	Good	Fair
Safety Impact	Good	Good	Good	Good	Good
Automobile Mobility	Good	Good	Good	Good	Fair
Pedestrian Mobility	Fair	N/A	N/A	N/A	Fair
Bicycle Mobility	Fair	N/A	N/A	N/A	Poor
Environmental Impact	Good	Fair	Fair	Fair	Fair
Visual Quality	N/A	N/A	N/A	N/A	Good

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Access Control Solutions

Table 6: Evaluation of Access Control Solutions Alternative

Criteria	Access Control Solutions Alternative		
	Driveway Closure/Combination	Parcel Thru Access	Raised Medians / Channelization
Improvement Cost	\$	\$\$	\$\$
ROW Impact	Good	Poor	Good
Funding Availability	Good	Poor	Good
Safety Impact	Good	Good	Good
Automobile Mobility	Good	Good	Good
Pedestrian Mobility	Good	Good	Good
Bicycle Mobility	Good	Good	Good
Environmental Impact	Fair	Fair	Good
Visual Quality	Fair	Fair	Fair
Public Acceptance	Good	Fair	Good
TAC Support	Good	Good	Good

Beverly Intersection Improvements

Table 7: Evaluation of Beverly Avenue Improvements

Criteria	Beverly Avenue Improvements	
	Elongated Roundabout	J-Hook
Improvement Cost	\$\$\$	\$\$
ROW Impact	Poor	Fair
Funding Availability	Poor	Fair
Safety Impact	Fair	Good
Automobile Mobility	Good	Good
Pedestrian Mobility	Poor	Fair
Bicycle Mobility	Poor	Fair
Environmental Impact	Fair	Fair
Visual Quality	Fair	Fair
Public Acceptance	Fair	Fair
TAC Support	Good	Fair

Source: ADOT E2C2 Historical Price Index

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Non-motorized Improvements

Table 8: Evaluation of Non-motorized Improvements

Criteria	Non-motorized Improvements			
	Sidewalk Addition	Bicycle Lane Addition	Upgrade wide curb lane	Midblock Crossing
Improvement Cost	\$\$	\$\$\$	\$	\$
ROW Impact	Poor	Poor	Good	Good
Funding Availability	Fair	Fair	Fair	Fair
Safety Impact	Good	Good	Good	Good
Automobile Mobility	Fair	Fair	Fair	Fair
Pedestrian Mobility	Good	Fair	Fair	Good
Bicycle Mobility	Fair	Good	Good	Fair
Environmental Impact	Fair	Fair	Fair	Fair
Visual Quality	Fair	Fair	Fair	Fair
Public Acceptance	Good	Fair	Fair	Good
TAC Support	Good	Fair	Fair	Good

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Development Framework Alternatives

The evaluation of the Development Framework Alternatives includes Development Policy, Transportation Network Policy, and Multimodal Policy.

Development Policy

Table 9: Evaluation of Development Policy Alternatives – Zoning Ordinance

Criteria	Development Policy Alternatives: Zoning Ordinance			
	Frontage Requirements	Setback Requirements	Corner Lot Sizes	Outparcel Access
Improvement Cost	N/A	N/A	N/A	N/A
ROW Impact	N/A	N/A	N/A	N/A
Funding Availability	N/A	N/A	N/A	N/A
Safety Impact	Good	Fair	Good	Good
Automobile Mobility	Good	Fair	Good	Good
Pedestrian Mobility	Good	Fair	Good	Good
Bicycle Mobility	Good	Fair	Good	Good
Environmental Impact	N/A	N/A	N/A	N/A
Visual Quality	Good	Good	Fair	Fair
Public Acceptance	Good	Good	Good	Good
TAC Support	Fair	Fair	Fair	Fair

Table 10: Evaluation of Development Policy Alternatives – Development Review

Criteria	Development Policy Alternatives: Development Review			
	Optimized Access Design	Shared Access	Shared Parking	Landscape Buffers
Improvement Cost	N/A	N/A	N/A	N/A
ROW Impact	N/A	N/A	N/A	N/A
Funding Availability	N/A	N/A	N/A	N/A
Safety Impact	Good	Good	Good	Good
Automobile Mobility	Good	Good	Good	Fair
Pedestrian Mobility	Good	Good	Good	Fair
Bicycle Mobility	Good	Good	Good	Fair
Environmental Impact	N/A	N/A	N/A	N/A
Visual Quality	Good	Good	Good	Good
Public Acceptance	Good	Good	Good	Good
TAC Support	Fair	Fair	Fair	Fair

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Transportation Network

Table 11: Evaluation of Transportation Network Alternatives

Criteria	Transportation Network Alternatives	
	Targeting New Developments	Completing Street Grid (New Streets & Parcel Reassembly)
Improvement Cost	N/A	\$\$\$
ROW Impact	N/A	Poor
Funding Availability	N/A	Fair
Safety Impact	Good	Good
Automobile Mobility	Good	Good
Pedestrian Mobility	Good	Good
Bicycle Mobility	Good	Good
Environmental Impact	Fair	Poor
Visual Quality	Fair	Good
Public Acceptance	Good	Poor
TAC Support	Fair	Poor

Multimodal Policy

Table 12: Evaluation of Multimodal Policy Alternatives

Criteria	Multimodal Policy Alternatives				
	Sidewalk Policy	Bicycle Lane Policy	Bicycle Parking Policy	Midblock Crossing Policy	Transit Amenity Policy
Improvement Cost	N/A	N/A	N/A	N/A	N/A
ROW Impact	N/A	N/A	N/A	N/A	N/A
Funding Availability	N/A	N/A	N/A	N/A	N/A
Safety Impact	Good	Good	Fair	Good	Good
Automobile Mobility	Fair	Fair	Fair	fair	fair
Pedestrian Mobility	Good	Fair	Fair	Good	Good
Bicycle Mobility	Good	Good	Good	Fair	Good
Environmental Impact	Good	Good	Good	Good	Good
Visual Quality	Good	Good	Good	Good	Good
Public Acceptance	Good	Good	Good	Good	Good
TAC Support	Good	Good	Good	Good	Good